9. (Twice Amended) A method for determining whether or not a test gene encodes a polypeptide that converts a ligand precursor into a ligand, the method comprising

(A) introducing a test gene into a cell comprising (i) a vector comprising a nucleic acid sequence encoding a nuclear receptor and (ii) a vector comprising a binding sequence to which the nuclear receptor binds and, located downstream of the binding sequence, a nucleic acid sequence encoding a reporter molecule,

(B) contacting a ligand precursor with the cell into which the test gene is introduced, and

(C) evaluating the activity of the reporter molecule relative to the activity of the reporter in the absence of the test gene, an increase in activity indicating that the test gene encodes a polypeptide that converts the ligand precursor into a ligand that activates the nuclear receptor.

10. (Twice Amended) A method for screening for a gene encoding a polypeptide that converts an inactive form of vitamin D3 into an active form, the method comprising

(A) introducing a test gene into a cell comprising (i) a vector comprising a nucleic acid sequence encoding a vitamin D receptor and (ii) a vector comprising a binding sequence of the vitamin D receptor and, located downstream of the binding sequence, a nucleic acid sequence encoding a reporter molecule,

(B) contacting an inactive form of vitamin D3 with the cell into which the test gene is introduced,

(C) evaluating the activity of the reporter molecule relative to the activity of the reporter in the absence of the test gene, an increase in activity indicating that the test gene encodes a polypeptide that converts an inactive form of vitamin D3 into an active form that activates the vitamin D receptor, and

(D) isolating the test gene from the cell if the cell shows an increase in reporter activity.

11. (Twice Amended) A method for determining whether or not a test gene encodes a polypeptide that converts an inactive form of vitamin D3 into an active form, the method comprising

(A) introducing a test gene into a cell comprising (i) a vector comprising a nucleic acid sequence encoding a vitamin D receptor and (ii) a vector comprising a binding sequence to which vitamin D receptor and, located downstream of the binding sequence, a nucleic acid sequence encoding a reporter binds molecule,

(B) contacting an inactive form of vitamin D3 with the cell into which the test gene is introduced, and

(C) evaluating the activity of the reporter molecule relative to the activity of the reporter in the absence of the test gene, an increase in activity indicating that the test gene encodes a polypeptide that converts an inactive form of vitamin D3 into an active form that activates the vitamin D receptor.